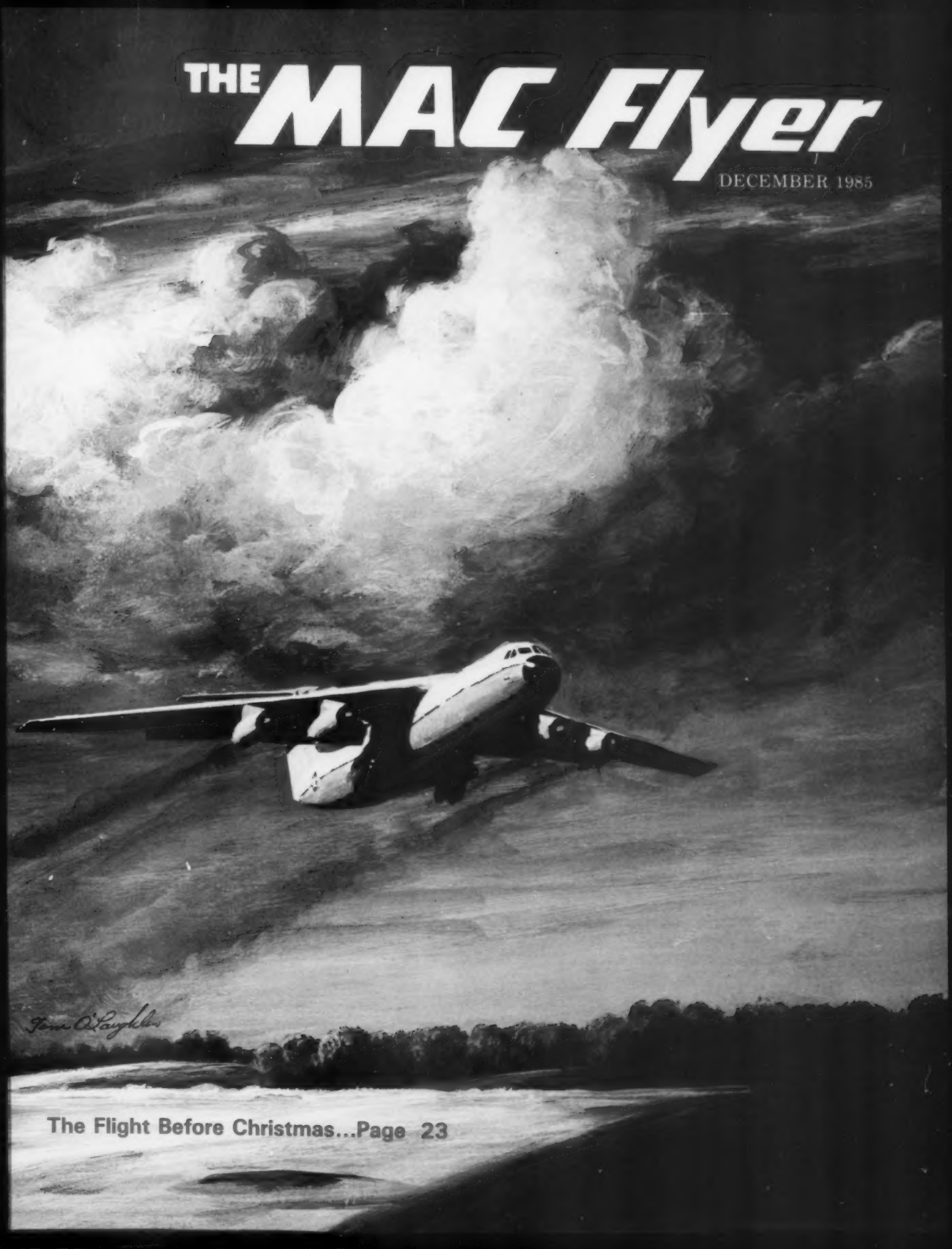
THE MAC Flyer

DECEMBER 1985



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THE MAC Flyer

For Greater Safety in MAC Air Operations

December 1985 | MACRP 127-5 | VOL XXXII NO. 12

Gen Duane H. Cassidy — Commander in Chief
Brig Gen William H. Sistrunk — Inspector General
Col Richard W. Blatter — Director of Safety

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Capt Thomas J. Whitmire — Associate Editor
Capt Donald L. Rosenberry — Associate Editor
Mrs Frances A. Caldwell — Managing Editor
Mr Tom O'Laughlin — Art Director

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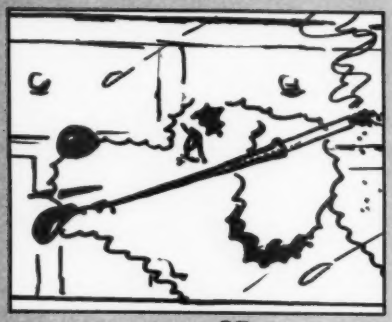

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The MAC Flyer is published by the Director of Safety, Military Airlift Command. The contents are informative and not regulatory or directive. Names of people and places in mishap stories are representative and not necessarily of the aircraft or equipment involved. Information in any article may not be construed as incriminating under Article 31, UCMJ.

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General Cassidy's Christmas Message

The holiday season is a time of special meaning and affection in the hearts of the American people. This is the time of year that symbolizes our country's deep spiritual roots. A time when we reaffirm our commitment to the principles of peace, compassion and sharing . . . those principles that are the hallmark of our spiritual heritage, those principles that characterize us as a people.

As we reflect upon peace and goodwill, one must recognize that such a goal will not be achieved overnight, nor will it be resolved in the course of a single lifetime. The quest for peace requires deep commitment and sacrifice.

As a nation, we commit a significant portion of our national resources to the preservation of peace, not only for our country, but for peace and stability throughout the world.

As individuals, we in the armed forces forfeit a significant portion of our personal freedoms to protect a way of life for all Americans. Commitment to military service and to one's country calls for a willingness to sacrifice - - and those who serve their country in uniform find the greatest joy and sacrifice that can come into life - - service to others.

Service to others is the special legacy of Military Airlift Command. In peace and in conflict, the people of MAC are there helping others. Whether it's airdropping airborne troopers, returning hostages from the Middle East, rescuing a downed aircrew member, delivering relief supplies to a country after a disaster, penetrating the eye of a hurricane or warning of an impending tornado, MAC's central mission is helping mankind. Our country has always counted on the men and women of the Military Airlift Command to be on call and ready for any crisis . . . and we'll always be there.

People caring for people has always been the strength of America. It is also her future. At this time of year, let us rededicate ourselves to continue to accept that important responsibility. We in MAC come into contact with so many people that it is easy to lose sight of them as individuals with personal concerns and special problems. At this time, let us emphasize, with renewed commitment, the worth of each individual. This is the human dimension, which we in this Command must never forget.

From the Cassidy family to each of you and your families comes a special greeting at a special time . . . we send you our warmest wish for everything good and a joyous holiday season.

GENERAL DUANE H. CASSIDY, CINCMAC

Passenger Safety of Flight

It's up to you.

By Capt. John W. Pruitt
HQ MAC/TR
Scott AFB Illinois

I've read lots of stories where flyers met harm,
Or wrecked their craft or near bought the farm.
And yet there's much more to this safety of flight.
To not mention it here seems to be less than right.
I'm referring, of course, to the passengers' woes,
The banging of shins and the smashing of toes,
In a painful encounter with flight as MAC flies.
It's a tale full of rumor, innuendo and lies.
It's a tale well worth telling, 'cause the message is here.
If you read this stuff close, you will hear loud and clear.

Our passenger starts his flight with the drag
Of a huge, triple-suiter, go-'round-the-world bag.
It's much over-packed and was sat on to shut,
So lugging its weight is a pain in the butt.
But lug it he does, a wrenched back to get.
(A lesson in safety, am I sending it yet?

Don't start out your trip with a kink in your back.
If you're not a weightlifter, cut yourself slack.
Pack light and take two bags, instead of just one,
To balance your load and make traveling fun.)
When he gets to the terminal, he just might find,
That his plane is delayed in some weather-type bind.
So he drops off his bag and goes to the snack bar,
To drink a few beers and smoke a cigar.
Then the boarding call finds him not really alert.
He can't walk too well and his head starts to hurt.
But he makes it as far as the metal detector,
Where he stumbles and falls through the beepy corrector.
(So don't drink and fly to your next TDY,
Cause the flightline is tricky, not to mention the sky.)

As he picks out his seat and takes out his book,
Our buddy won't give the loadmaster a look,
As he shows off the oxygen, seat belts and doors,
And says to be careful when walking the floors.
So our fellow "forgets not to walk with a smoke."
And he falls as he moves; it isn't a joke,
Cause the poor guy he burns with the nicotine stick,
Is a two-star who comes on like a ton of bad brick.
(So listen up close when the crew tells the rules,
Cause ignorance is just a defense for a fool.)
As the plane flares for landing and touches the ground,
Our dear friend, so anxious, starts looking around.
The loadmaster says "please, remain in your seat,"
But this guy's on the run without missing a beat.
He's donning his jacket and lifting his case.
You'd think he was entered in some kind of race.
Then a sudden stop causes the aircraft to jump,
And our passenger lands on his head with a bump.
(So stay in your seat with your belt cinched down tight,
Cause a bump on the head could turn out your light.)

Honorable Mention 1985 Flight Safety Writing Contest

Our fellow recovers and puts on some airs,
Till his head hits the door and he falls down the stairs.
He rushes again as soon as he's able,
Then trips on the ever-present power cable.
The fall brings his head to the waiting bus bumper,
And makes his ears ring with a terrible thumper.
On the bus he won't listen to, "Please take a seat,"
So the jerk of the bus takes our boy off his feet.
(I'm telling you now that there's no need to worry.
You'll get to the baggage room, there's no need to hurry.)

In baggage claim too, there are things to respect,
As this passenger finds, due to careless neglect.
He impatiently shoves to the front of the crowd,
And demands his bag *now*, in a voice much too loud.
When he crowds the conveyor, his pants touch the belt,
Then a tug on his pant leg is suddenly felt.
It seems that his clothing got caught in a gear,
And the loss of his pants, from the crowd brought a cheer.

(So be cautious when standing near all moving works,
Cause machinery often has dangerous quirks.)

The moral I'm selling, and hope that you're buying,
Is don't carry too much and don't drink before flying.
Listen to prebriefs and don't smoke in the aisle,
Wait in your seat and debark single file.
When riding a bus, sit down in a seat,
And when claiming your baggage, watch out for your feet.
This trip was fictitious, with problems created,
To show you that safety is always related,
To anything done in your Air Force career.
I said it in jest, but I mean it sincere.

Capt John W. Pruitt is a 1974 Indiana University graduate. He's worked in transportation frequently in his career and is currently the Chief of the Passenger Airlift Capability Control branch at MAC Headquarters.

A Farewell To Pens

By Capt Byron L. Howard
Supervising Editor

Folks, it's been a semi-long four years and I've learned a lot, to wit:

- Not all assignments at Headquarters MAC are "bad;"
- Being an editor at *TMF* is one of the best of the "good" assignments;
- Flying is the best "good job" you can ever have;
- We haven't discovered any new ways to "crash" perfectly good airplanes; and,
- There are an infinite number of mishaps out there waiting for the wrong time and the wrong place to happen.

In the 48 months I've worked here, a lot of things have happened in this command. MAC got a new numbered air force. There is a new T-tailed airlifter and a thing called a "Tilt Rotor" flying machine on the drawing board. There is even a new Combat Talon II in the offing. There was "Urgent Fury" which was one of MAC's finest moments. But there have been set-backs as well.

In 1982, MAC's Class-A mishap rate ended up as the worst in the command's history—1.3 per 100,000 flying hours—with 54 passengers and crewmembers dead. Then in 1983, MAC had the lowest Class-A mishap rate in the history of the command (0.4 per 100,000 flying hours), *and* one of the lowest in the Air Force.

We may never fully understand the sudden reversal, especially when 1985 looks like such a good year (fingers crossed). Probably the worst thing about all the MAC Class-A mishaps which occurred over the past four years is that, except for a few, all were attributed to human error. Breaches in aerial discipline were the most commonly cited causes and were manifested by:

- Pressing a mission in deteriorating weather;
- Inadequate route study;
- Complacency; and,
- Carelessness in handling the aircraft.

But do we know what can be done to stop a mishap from happening? You betcha!

It doesn't take a genius to see that just strengthening one link in the mishap chain of events could have possibly avoided a tragedy. A single word from another crewmember might have saved a crew and prevented a smoking hole!

Human-error-caused mishaps simply don't have to happen. In fact, they *shouldn't* happen. A *concerted* effort to haul in the reins and slow down or to question possible problems may be all that's needed. After all, if *you* don't yell "whoa," who will?

There is no need to press minima on an instrument approach, and we don't have to go lower than the authorized floor of a low-level route to prove we're "macho." Flight safety often overlaps with that age-old precept known as aerial discipline; for you see, a breach in aerial discipline often leads to tragedy.

As a former supervising editor once said, "Safety is more than an attitude. It's *behavior* which reflects a highly tuned instinct for self-preservation. It's knowledge of machine, procedures, and almost more importantly, *self*." Only *you* know what kind of problems you can deal with effectively and how far you can push. So, when you begin to feel you or someone on your crew is getting just a bit behind, there ought to be a little voice somewhere behind you cautioning, "Safety, m'lad. Safety!"

BLH

Global Notes

The world's number-one flight safety magazine (*The MAC Flyer*, of course) is proud to announce the arrival of our new supervising editor; (EDITORIUS EXCEPTIONALIUS). Maj. Thomas C. Weinzierl departed his delightful digs in Delaware to discover the mythical, magical mysteries of *The MAC Flyer*. Major Weinzierl takes the reins of *TMF* from Capt. Byron (Buzz) Howard who, after four years as an associate and supervising editor, is returning to his beloved Herk at Clark AB, PI.

Major Weinzierl arrived by way of Dover AFB where he served as a C-5A aircraft commander and flight safety officer for the 436 MAW. His career history includes an assignment to Weisbaden AB, GE, where he flew an aircraft still familiar to some *TMF* readers, the C-97G. He returned to Langley AFB, VA, to fly T-39s and also serve as the detachment flight safety officer. Welcome aboard, Tom (sir)!

Also departing the tenacious typing team is Capt. Thomas J. (T.J.) Whitmire. Having run out of blue ink, paper and good ideas at the same time, T.J. decided to make the big move to HQ MAC/IGFF (Flight Safety) where he'll handle the C-130 mishap prevention program. We at *TMF* are forever indebted to T.J. for his hard work as an associate editor. Godspeed, T.J.

Attempting to replace T.J. is Capt. Mike (The Blade) Iltis. Mike comes to *TMF* from HQ MAC/DOV and is our resident helicopter expert. He is a senior pilot with over 2,100 hours of seat time as an aircraft commander, instructor, and flight examiner in helicopters. Welcome aboard Mike!

Honorable Mention 1985 Flight Safety Writing Contest

Decisions

The universal language of safety

By Mr. Roger Marchant
Australia

I am a copilot and I suppose what follows could be considered a confession. I succumbed to the anxieties inherent in the copilot position, which includes the fear of questioning the authority of a seasoned aircraft commander. However, I was so frightened on one particular occasion that I was driven to record my feelings. I hope it will help some of my fellow copilots confronted with a similar situation.

I've always wanted to be a fighter pilot, for reasons familiar to all who have started out starry-eyed in this trade. My vision of a career was framed by the simple concepts of steely-eyed supersonic heroes, formation aerobatics and interceptors spitting deadly fire—all reinforced by a diet of old war movies and biographies of the aces and their tactics. So you can understand that I was shattered when, with my wings still bearing a pristine sheen, I was informed that I was unsuited for single-seat operations. "Nothing wrong with your flying," they said. "We just think you'd be happier on a crew aircraft."

As there was no appeal process, I could only watch as my contemporaries selected for fighter training headed off boisterously for the wild blue yonder.

So, there I was, in the right seat of an (admittedly) big jet, hauling trash hither and yon. I became proficient at flight planning, pretty good at reassuring nervous passengers and expert at enduring the idiosyncracies of various aircraft commanders. Most of all, I fretted at the interminable hours spent working out fuel flows and battling with ATC. I was convinced the service had done me wrong.

I was afraid of "Q." That's nothing unusual. It was a brave or unfeeling copilot who didn't at least hold him in considerable awe. Q (that's the nearest I can get to the nickname for Cunimbus,) was beetle-browed, unpredictable and given to cataloguing his copilot's shortcomings in a loud voice in front of anyone who happened to be around. He had little regard for any authority except his own, and he expected us to jump quickly, in the right direction, and without questioning his constant demands. He never smiled and we hated him. Q's only desire in life was to fly the international route like his brother. However, he *was* an impeccable pilot, handling our big four-engine jet with a delicacy that was at odds with his surly personality.

As the unit's newest copilot, I was ordered, on short notice, to fly with Q. The flight was pretty miserable. Q's only "conversation" consisted of constant

criticism of me, the metro service and the Air Force in general, but particularly of me. It was a gala performance by the prima donna we all knew him to be.

By the time we reached our descent point, I was ready to quit. He was, however, right about the weather; the terminal forecast was poor enough that diverting to our alternate would have been a reasonable proposition. Q's forceful opinion, though, was that if our haughty passengers wanted to get here so badly, then that's what they'd bloody well get—and he hoped they'd enjoy the approach. The clouds were everywhere, the night was black and we were in the weather as soon as we left our cruising level. I scanned the radar with growing dismay—there appeared to be thunderstorms all around. We skirted a couple, but it wasn't until we departed the IAF and were established on glidepath that the turbulence became significant. Q grunted with pleasure; the passengers would probably be throwing up by now.

By four miles out I was fairly tense and Q was working hard at the controls. My scan was going pretty well and I knew enough to keep the IAS under close scrutiny. The rain hissing on the windshield provided an ominous contrast to the full speed swish of the wipers.

Then, at three miles, we broke out. We still had turbulence, but the runway lights were beautiful to see. I think I must have been mesmerized by their welcoming clarity, for my "lights" call was drowned by a roar for GO-AROUND POWER as Q literally smashed the throttles against their stops. My concern was replaced by terror as I stared at the IAS. It was fluctuating madly at 10-15 knots below our recommended approach speed. The airfield lights disappeared as Q came back on the yoke. Oh no! I thought wildly, what's he doing? We need airspeed—get the nose *down*, we'll stall . . . . *We'll stall ! ! !*

I'll never forget that split second of utter panic. Q's shout of pure rage above the howl of the engines, the decaying airspeed and the nose coming up, up, up.

When the stick-shaker activated all my illusions were shattered. Now I knew exactly why I wasn't a fighter pilot. Now was the moment that I should act. Q had undoubtedly flipped. I must lean over, knock him off the controls and take command. The stick absolutely must go forward. We must get airspeed. Otherwise we'll be dead. But I did nothing. I couldn't move. I just sat and watched as the IAS teetered on the edge of the stall and the altimeter told the story—500, 400, 300. Q was holding us on the stickshaker and we were going down. The turbulence increased and the aircraft vibrated madly in what seemed a final desperate effort to remain airborne. I remember wondering stupidly which wing would drop first.

Then, at about 150 feet, the airspeed appeared to settle and with what seemed to be agonizing indecision, cautiously crept upward. The turbulence ceased abruptly, we stabilized and the nose came slowly down. The runway reappeared, Q called the lights and then we were over the threshold, still perfectly lined up. By now I was beyond surprise, and the gentle thump as we settled on the drenched strip was no more than I learned to expect from this captain.

Although the whole episode couldn't have lasted much more than a minute, it seemed a lifetime. I still didn't know what had happened, or why we weren't a mass of wreckage burning furiously somewhere short of the runway. That understanding would come later. What will always haunt me is that I froze when I should have acted.

As we slowly taxied to the VIP bay, Q asked me how I'd enjoyed the approach. I was bold enough to say I didn't understand why he'd pulled the nose up when he could see the IAS was on the way down. An immense grin lit up his face, transforming him into a human being. He looked at me and said simply, in his thick Georgian accent, "V znaii sila, molodoi chelovek," (loosely translated: "This is where I get my knowledge, young fellow"). Then he rummaged in his flight bag beside the seat and took out a magazine, which he flipped across to me. I stared at it amazed. It had obviously been brought back by his brother from one of his overseas trips. It was *The MAC Flyer* of October 1983, earmarked on page 8. The title of the article was "Blueprint for Disaster, A Sobering Look at Microbursts."

I gazed out the side window. It was cold out there and the rain was driving hard, but believe me, the lights of Leningrad Airport had never looked so good.

We know what you want for Christmas!

Don't pout, just write!

List
1. CHANCE TO EXCEL.
2. ADMIRATION OF YOUR PEERS.
3. SEE YOUR NAME IN PRINT.
4. A NEW MERCEDES.
5. A PERSONAL SUBSCRIPTION TO TMF.
6. AUDIENCE FOR YOUR FAVORITE "WAR"STORY.
7. KUDOS FROM THE BOSS.

Well, Santa fans, the jolly staff of *The MAC Flyer* is prepared to make your wishes come true (minus the Mercedes). Quit dreaming of a white Christmas and start dreaming up your prize winning entry to the MAC Flight Safety Writing Contest.

Prop your feet up next to a blazing fire (not too close) and forget that you're up to your ailerons (or rotor blades) in snow. Never mind that the armpits of your only winter flight suit were eaten by moths last summer. Just dig down deep into the old yule bag and jot down that most memorable flight safety story.

No ideas you say? Well, think back on that last "big" mission when nothing seemed to go right. Remember that fifteen-hour deployment which turned into forty-eight? Or how about that last sortie? You know, the one where, if it hadn't been for your skill and cunning, that multi-million dollar aircraft of yours would have ended up resembling Dad's old '68 Rambler after its stellar performance in the demolition derby.

The rules are simple. The story or poem must contain an aviation safety or mishap prevention message. So put down the snow shovel, heat up your favorite yuletide brew, pull out the old quill pen and create your very own prize-winning ode.

You won't be sorry! Santa will surely reward you in kind. Your friends will stand in awe of your literary style. The boss will finally recognize that star quality you've been hiding for so long and, who knows, even the local bank may break down and give you the loan for that Mercedes you've been dreaming about. Don't wait "Til the night before . . ." Do it now!

THE RULES

The 1986 MAC Flight Safety Writing Contest is conducted according to MACR 900-3 and these rules. All entries must be original, unpublished and postmarked no later than 31 March 1986. Stories must be between 1,000 and 3,000 words long (about 6 to 14 double-spaced typed pages). Poetry should be about 75 to 100 lines. Entries must contain an *aviation safety/mishap prevention message.* Manuscripts must be double-spaced, typed and submitted in two copies. Identify entries by title only and attach a cover sheet showing the author's name, address, duty phone number and unit. The cover sheet must contain a brief autobiography.

The contest is open to anyone. Entries qualifying under the above rules earn their author a free one-year subscription to *The MAC Flyer.* However, contest prizes (desk sets and plaques) may only be awarded to military members and civilian employees of the Department of the Air Force or Air Reserve Forces. Other entrants may be selected for Honorable Mention in a special category. All winning stories will be published in *The MAC Flyer.* Entries should be addressed to:

Flight Safety Writing Contest
HQ MAC/IGFE
SCOTT AFB, IL 62225-5101

Good communication might prevent a ...

Transposed Tragedy

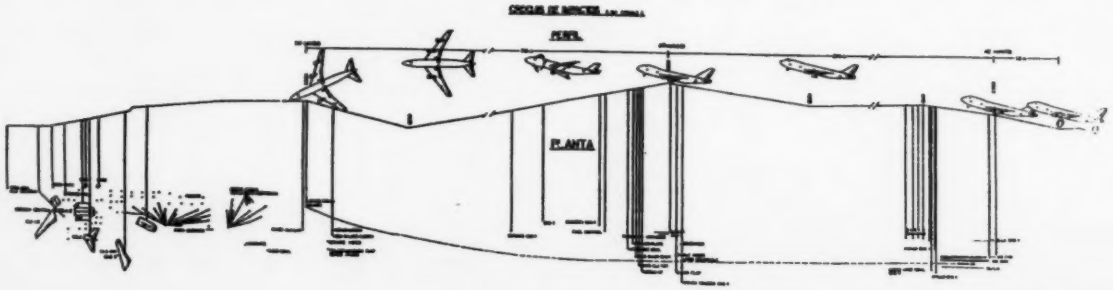
Avianca Flight 11 was a regularly scheduled passenger flight from Paris to Bogota. Initially, the crew was told they would fly all the way to Bogota. But about midday on November 26, the day they were scheduled to leave, the crew was told they would stop in Madrid where another crew would then fly the Boeing 747-200 on to Bogota. After a routine flight planning session, Avianca Flight 11 departed Paris' Charles de Gaulle Airport at 2225 GMT for Madrid's Barajas International.

Their flight was pretty routine until they arrived in the Madrid area at approximately 2330. In his first contact with Madrid Approach, the copilot omitted two reporting points while repeating the inbound clearance. When he read it back a second time, he still omitted one of the points. Similar communication errors occurred frequently, especially when the crew read back clearances which contained numbers. Additionally, the crew failed to report reaching Pamplona VOR as directed by ATC.

Mental errors continued to plague the crew. Approximately 30 seconds before they reached Barahona VOR the captain asked his copilot for their position. The copilot was busy trying to tune in one of the VORs near Madrid. The captain asked if he was trying to tune in Castejon. He replied that he was tuning in Barahona instead and that he had misread the frequency.

Later, the copilot had trouble inserting the coordinates of the Madrid VOR into the plane's INS. The captain noticed the copilot having trouble with the numbers and asked him for the frequency of the VOR. All this time the aircraft continued on toward the Castejon VOR because the autopilot was never disconnected from the INS.

About midnight GMT the copilot reviewed the approach procedure for Madrid's runway 33, including the elevation, inbound heading

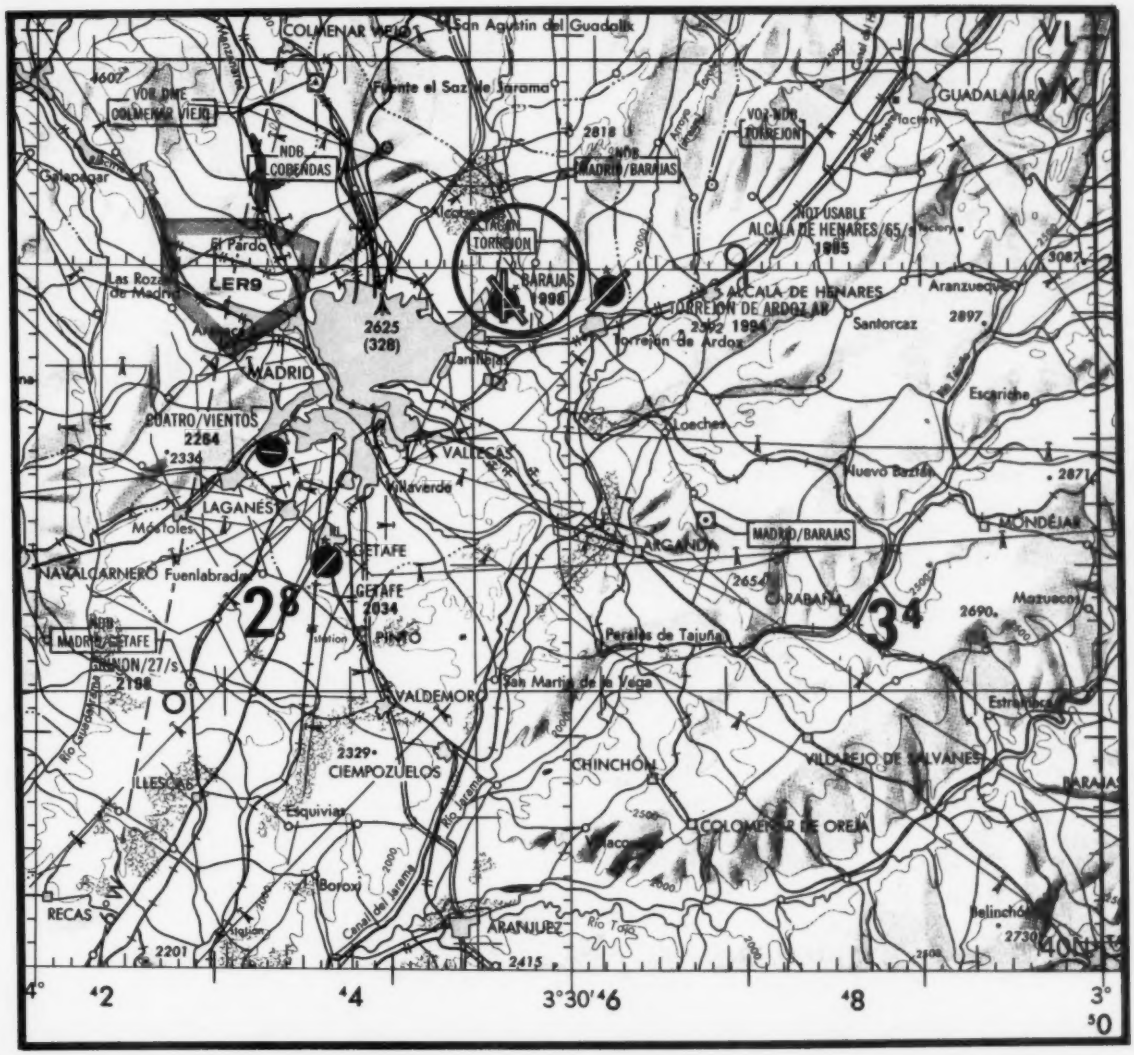


and ILS frequency. He said the crossing altitude over the outer marker was 2,382 feet instead of 3,282 feet—a difference of 900 feet. The captain accepted the incorrect figure, or at least didn't comment on it.

Shortly after the approach briefing, the captain asked for the descent checklist. This task was interrupted several times:

- When the captain told the copilot to report reaching FL90, the altitude alert sounded at this same time;
- When the captain asked for flaps; and,
- When the captain said he was ready for the ILS.

Also about this time, Madrid Approach informed the crew they were cleared for the approach (although they never said *which* approach), and they cleared Flight 11 for further descent. The captain naturally assumed he was cleared to execute the approach he had selected and briefed, and the copilot had just reviewed.



The captain started a right turn with the autopilot engaged. During this turn the captain called for the Landing Checklist. Shortly afterward he disengaged the autopilot while he turned the 747 to a heading direct to MA, the Madrid locator outer marker (LOM) for the ILS, then he reengaged it. About four minutes after midnight GMT, Madrid Tower gave the crew landing clearance. Now on heading for the MA LOM, the aircraft started a smooth descent of about 1,250 feet per minute.

At 0006, the Ground Proximity Warning System (GPWS) activated, calling "TERRAIN, TERRAIN, WHOOP PULL UP, TERRAIN." The captain, in a very calm voice, said, "Bueno, bueno," or "Well, well," (sic) but t didn't take any corrective action. The GPWS warning continued for another five seconds before the captain again said, "Bueno," and disengaged the autopilot. The copilot then said, "It says TERRAIN, captain." The copilot's voice was also calm and showed no signs of alarm.

Nineteen seconds after the first GPWS alarm, the Boeing 747 hit high terrain 6½ miles southeast of Barajas Airport. The plane, traveling at 142 knots IAS, bounced back into the air and continued on for approximately 750 feet. While still traveling at about 135 knots, the crippled jumbo hit the ground again. This time more of its landing gear was torn off and the number-four engine separated from the wing.

Avianca Flight 11 bounced into the air for the second and final time, rolling 180 degrees to the right and striking the ground about 1,000 feet from the second impact. This time the right wing hit first and was ripped off. As it continued to roll, it came down on the upper right section of the fuselage and broke into five larger parts.

Of the 11 survivors, nine were thrown out of the cabin after the second impact. The other two escaped from the aircraft on their own. All 11 were seriously injured in the ensuing fire.

Findings

Some excerpts from the findings of the Spanish Accident Investigation Board follow:

- All the navaids were working properly and there is no evidence of ATC radar or communications failures.
- The aircraft was performing normally with no evidence of malfunction in any system.
- From Barahona VOR to the beginning of the turn to MA LOM, the crew didn't follow the appropriate procedures, resulting in inaccurate navigation.
- The crew flew below the minimum sector altitude for more than one minute.
- The crew turned toward the MA LOM and continued their descent, unaware of the distance to the airport and relying only on ADF bearings.
- The captain accepted, without objection, the erroneous crossing altitude over the MA LOM announced by the copilot.
- The captain didn't take any action when the GPWS activated.
- When transferring the flight to the tower, approach control didn't give position information to either the tower or the aircraft.
- The approach controller didn't inform the crew that radar service was terminated.
- The crew and the controllers didn't follow ICAO standard communications procedures and phraseology.

Although these are the findings the Board felt led directly to the fatal crash, there were several others they felt were contributory. Sadly, they sound all too familiar.

- Inaccurate navigation which led to an incorrect starting position for the approach.
- Lack of corrective action according to GPWS procedures.
- Lack of cockpit teamwork.

Applications to MAC

Navigation in terminal areas is the responsibility of every crewmember in the cockpit. Even those not directly responsible for navigating the aircraft should pay close attention to navigation charts as well as outside terrain. MAC crews have already been where this crew ended up; it should never happen again!

Additionally, pathologists found that the flight engineer's body contained medozepan, probably a component of some tranquilizer. They suspected he had either self-medicated or had the drug prescribed by a physician unfamiliar with flight medicine.

Adapted from Pan American Air Lines' Flight OPS

Flying-Hour Milestones

10,000

Lt Col Earnest M. Conart, Jr., 356 TAW
Lt Col Richard P. Miles, 356 TAS
SMSgt Charles F. Watson, 183 TAS
MSgt Thomas C. Munsell, II., 707 MAS

5,000

Col Thomas E. Eggers, 63 MAW/CC
Col Ronnie C. Peoples, 317 TAW/CC
Lt Col James G. Cloud, 53 MAS
Lt Col Felix N. Courington, Det 1, 1401 MAS/CC
Lt Col Scott M. Ryder, 53 MAS
Lt Col Frank L. Scheder, 135 TAS
Lt Col David J. Stanley, 301 MAS
Maj Bruce D. Allen, 53 MAS
Maj John C. Bly, 1 MAS
Maj Herbert McClannan, Det 1, 1401 MAS
Maj David M. Deckmann, 356 TAS
Maj Woodraw W. Friend, Jr., 356 TAS
Maj William M. Howard, 731 TAS
Maj Paul M. Lavin, 356 TAS
Maj Thomas A. Manion, 135 TAS
Maj James R. Martin, 356 TAS
Maj John H. Riedie, Jr., 16 TATS
Maj John A. Rogers, 53 MAS
Maj Larry M. Smith, 53 MAS
Maj Roy J. Spencer, 731 TAS
Maj James M. Squire, 53 MAS
Maj David J. Stegmaier, 96 TAS
Maj Thomas M. Stogsdill, 731 TAS
Maj William R. Wilson, 20 MAS
Capt Wesley G. Langland, 731 TAS
SMSgt Magnus M. Wick, 708 MAS
SMSgt Dwight E. Willke, 1 MAS
MSgt Jose A. Alberio, 96 TAS
MSgt Alton D. K. Arakaki, 37 TAS
MSgt Edward P. Gerald, 53 MAS
MSgt Robert E. Houghton, 708 MAS
MSgt Robert K. Kanakaole, 53 MAS
MSgt James F. Kepka, 911 TAG
MSgt Charles W. Mercer, 356 TAS
MSgt Douglas J. Parsons, 17 TAS
MSgt Edmond J. Stewart, 731 TAS
MSgt Edmond J. Stewart, 731 TAS
MSgt Kenneth G. Stumpf, 708 MAS
MSgt Edward F. Voss, 708 MASS
TSgt Jeffrey G. Price, 356 TAS
SSgt Edward Nunez, 1 MAS

2,500

Maj Joseph D. Young, Det 8, 37 ARRS
Capt Donald W. Swallom, Det 8, 37 ARRS

Ranks and units are those at time of award. See MACR 900-3 for details on how to apply for your own milestone award.

CRAF Our Partners in Airlift

MAC is actively enhancing its strategic airlift cargo capability to lessen the tremendous cargo shortfall we could face in a contingency. Though enhancements of organic airlift will make up most of the effort, enhancing of the Civil Reserve Air Fleet (CRAF) will enable our civilian partners to make a major contribution by increasing our cargo lift capability.

The CRAF Enhancement Program gives us more long-range bulk and oversize cargo capability at a fraction of the cost of buying, operating, and maintaining organic airlift. We can modify either new or existing civilian passenger aircraft to give them cargo convertibility.

The government saves the costs of buying, operating, and maintaining the aircraft during the contract term. All the government pays for are the costs of modifying the airplane, out-of-service costs, and associated costs of flying a heavier aircraft for the te
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during peacetime
carriers during an
the national defens

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am has awarded two new
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plane will remain in the CRAF
1998, ready to change to a
case of a crisis.

contract is with Pan American
to 19 B-747s with cargo-
res. This modification includes:

ide cargo door
gthened cargo floors
e galleys and lavatories
e overhead storage bins
argo-handling system
ual updates

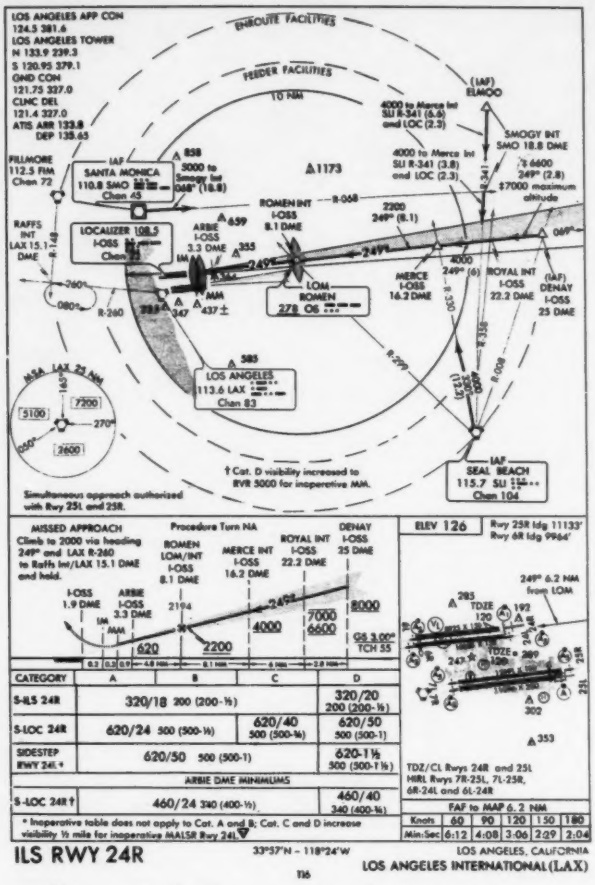
Congress appropriated the funding for 14 B-747s in previous years. Congress is now considering the funding for the final five airplanes in the 1986 budget. The Air Force has exercised options to modify the first 12 aircraft.

The first aircraft, Pan American's "Clipper Sea Serpent," entered modification at Boeing's Wichita plant 1 Feb 85 and rolled out on 31 May 85. This 34-pallet-capable airlifter can carry 175,000 pounds of bulk and oversize cargo 3,500 NM. The second aircraft has already rolled out, and the third is due for delivery on 19 Nov 85. The last aircraft (#19) is due delivery in Feb 88.

If Boeing modifies all 19 Pan American 747s, the Air Force will gain a 2.9 million ton-miles-per-day capability at one-sixth the cost of comparable organic lift.

TMF
Instrument Quiz

Okay Aircraft Commander Person, you and your crew have been randomly selected (again) for a most trying mission. All you have to do is drop into Los Angeles International Airport and pick up five technicians. They and their equipment (a small box of veggies, a box of Gall detergent, 22 cases of Crud Light brew and a single ohm meter) are bound for beautiful Pango Pango for a week of target practice. They're anxious to begin their missile-catching, so they're counting on you. Your copilot for the flight is Capt. Smedley, the noted approach authority. True to his nature, Smedley is having a little trouble with some of the critical parts of the approach. See if you can give him a hand. All his questions came to him during his careful examination of the ILS approach plate, which is reproduced here for your viewing pleasure.



1. "Um, Exhalted High Ma'amness/Sirness, what is this funny-looking ▽ doing on this approach chart?"

a. "Smedley, that refers to the new runway lighting system they're trying out here."

b. "Smedley, that indicates the total runway gradient exceeds 0.3%."

c. "Smedley, that symbol means the take-off minimums aren't standard, and/or departure procedures aren't published."

d. "Smedley, that means there's a US Navy optical system here. It's shown because its height of almost 7 feet and proximity to the runway may create an obstruction for some types of aircraft."

Not bad there, you polished pilot you. But as with most of Smedley's days, this one is headed downhill, and he finds yet another problem which is affecting his concentration.

2. "Well, your Supreme High Captaincy, why is the frequency for the Romen LOM underlined?"

a. "They always underline the LOM frequency. It draws your attention more easily, and that's a pretty important freq after all."

b. "Obviously that indicates a minimum frequency for ADF tuning."

c. "That lets you know there's no voice transmission on that frequency."

d. "It means the frequency is in KHz instead of MHz."

Excellent. You have managed to stifle Smedley's overwhelming concern for the trivial, or have you?

3. "This is pretty amazing here. I've found something I just can't seem to figure out. We're flying this here glide slope, but I'm not so sure I want to trust it. How can I check it if there's no reference point? For example, what's the glide slope altitude at the final approach fix?"

a. "2200 MSL"
b. "2194 AGL"
c. "2194 MSL"
d. "2200 AGL"

Superbly good. You've already solved some of the most perplexing questions anyone ever considered while shooting an approach into LAX. But it seems that the L.A. approach is fraught with technical turmoil.

4. "Well boss, this seems a fairly amusing approach you've chosen here, but check this out. There are two, count 'em, two sets of approach minimums for the straight-in localizer to runway 24R. Why do you suppose they did that?"

a. "Well Smedley, one is there for those crews selecting the I-OSS, CH22, DME. The other is for crews selecting LAX, CH83, for DME information."

b. "As you know, Smedley, not all aircraft are equipped with the fine electronic devices we have, and those aircraft without DME capability have to use the higher minimums."

c. "Smedley, you see those minimums labeled "sidestep runway 24L"? Well, if you intend to land on runway 24L, you use the higher approach minimums for the localizer to 24R 'til you reach the LOM, then you fly to runway 24L."

d. "The second set of minimums applies when the middle marker is out."

Fine. Now you've *really* done it. You've *confused* Smedley! The retribution is sure to be instantaneous and intense.

5. "Gee boss, for some reason my glide slope indicator just caged at the top of my viewscreen. What do you suppose we should do now?"

"Well Smedley, let's request the localizer approach."

"Los Angeles ATC, Smedley here, we want the localizer, eh?"

"MAC 60123, Cleared localizer runway 24R."

"Gee, sir, with all this talk about which aircraft fly which approach, what I want to know is: What is the minimum equipment needed for the localizer approach, given no marker beacon?"

"C'mon Smedley. When would you be flying an ILS, then have that fail and have to go to the localizer, and then have the marker beacon fail? Get real."

"MAC 60123, L.A. Center. We've a bit of a problem here. LAX reports a rabbit has bitten through some of their electrical cables. They now have no marker beacon but they do, however, have a caution for bits of flying barbecued rabbit portions on final."

"Okay Smedley, the answer is _____.

a. TACAN, ADF and VOR
b. DME and VOR
c. ADF and VOR
d. Either answer b or c is correct

Okay then, Big Guy, so you've picked all the correct answers, so far, huh? Well, not to disappoint you, but we've found an incredibly important item which bears a little clarification. If you get this one wrong, don't feel too bad; some reasonably competent individuals have had a little trouble with it. Oh, and if you get it right, don't get all swell headed. Even Smedley guesses right sometimes.

6. "What does the double plus symbol ‡ on the approach plate represent?"

a. "It means you should add the altitude indicated to the field elevation."

b. "It is the same as a line above and below the altitude, a 'hard' altitude."

c. "It simply means 'note.'"

d. "It means the altitude referenced does not ensure MOCA."

THE ANSWERS

The first five answers are derived directly from the legend, found conveniently enough on the inside front cover of the approach book.

1. c
2. c
3. c
4. b
5. d
6. This one is a little tricky. If you're like us here at *TMF*, when you see one of those symbols you tend to look around to find some type of explanatory comment or complementary remark associated with it.‡ Failing to find said complement you expect it to be described somewhere, like in the legend. Then, when you get no satisfaction there, you call up HQ MAC Stan/Eval, who generously helps out by calling the folks at DMA in St. Louis, all to find out it means "note." That's right, the correct answer is c.

‡ Kind of like this.

Unanticipated Yaw

Most helicopter pilots are familiar with the phrase "loss of tail rotor effectiveness" used to denote a condition in which an excessive rate of right yaw is experienced in flight. This article sheds additional light on this event basing its information on extensive testing by Bell Aerospace Corporation.

Bell's research has given us a much greater understanding of the phenomenon. Although not unique to Bell helicopters, it's generally applicable to all helicopter designs of the single main rotor/anti-torque rotor configuration. Keep in mind when studying the insert that a helicopter with a main rotor which turns counterclockwise will experience right yaw, whereas a helicopter with a main rotor that turns clockwise will experience left yaw.

Recent testing of the OH-58 helicopter operated by the U.S. Army has revealed the occurrence of an unanticipated right yaw under certain low-speed mission conditions. The Army has referred to the right yaw characteristic as loss of tail rotor effectiveness (LTE). The following is a discussion of the low speed flight characteristics which can result in an unanticipated right yaw if appropriate attention is not paid to controlling the aircraft. These characteristics are present only at airspeeds less than 30 knots and apply to all single rotor helicopters.

Unanticipated right yaw is the occurrence of an uncommanded right yaw rate which does not subside of its own accord and which, if not corrected, can result in the loss of aircraft control. The term "loss of tail rotor effectiveness" is misleading. The tail rotor of the OH-58 and the 206 series helicopters has exhibited the capability to produce thrust during all approved flight regimes.

Four aircraft characteristics during low-speed flight have been identified as contributing factors in unanticipated right yaw through extensive flight and wind tunnel tests.

For this occurrence, certain relative wind velocities and azimuths (direction of relative wind) must be present. The aircraft characteristics and relative wind azimuth regions are:

1. Weathercock stability (120 to 240 degrees)
2. Tail rotor vortex ring state (210 to 330 degrees)
3. Main rotor disc vortex interference (285 to 315 degrees)
4. Loss of translational lift (all azimuths)

The aircraft can be operated safely in the above relative wind regions if proper attention is given to controlling the aircraft.

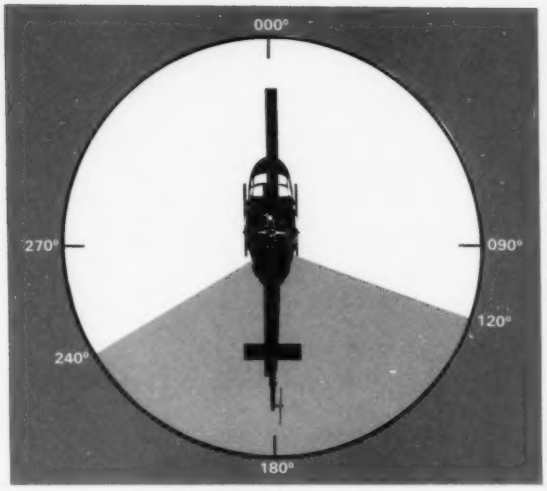


Figure 1

However, if the pilot is inattentive for some reason and a right yaw rate is initiated in one of the above relative wind regions, the yaw rate may increase unless suitable corrective action is taken.

WEATHERCOCK STABILITY

Winds within the 120° to 240° region will attempt to weathervane the nose of the aircraft into the relative wind. This characteristic comes from the fuselage and vertical fin. The helicopter will make an uncommanded turn either to the right or left depending upon the exact wind direction unless a resisting pedal input is made. If a yaw rate has been established in either direction, it will be accelerated in the same direction when the relative winds enter the 120 to 240 degree shaded area of Figure 1 unless corrective pedal action is made. The importance of timely corrective action by the pilot to prevent high yaw rates from occurring cannot be overstressed.

TAIL ROTOR VORTEX RING STATE

Winds from 210° to 330°, as shown in Figure 2, will result in the development of the vortex ring state of the tail rotor. The vortex ring state causes tail rotor thrust variations which result in yaw rates. Since these tail rotor thrust variations do not have a specific period, the pilot must make corrective pedal inputs as the changes in yaw acceleration are recognized. The resulting high pedal workload in tail rotor vortex ring state is well known and helicopters are operated routinely in this region. This characteristic presents no significant problem unless corrective action is not timely. If a right yaw rate is allowed to build, the helicopter can rotate into the wind azimuth region where weathercock stability will then accelerate the right turn rate. Pilot workload during vortex ring state will be high; therefore, the pilot must concentrate fully on flying the aircraft and not allow a right yaw rate to build.

MAIN ROTOR DISC VORTEX

Winds originating from 285° to 315°, as shown in Figure 3, can cause the main rotor vortex to be directed onto the tail rotor. The

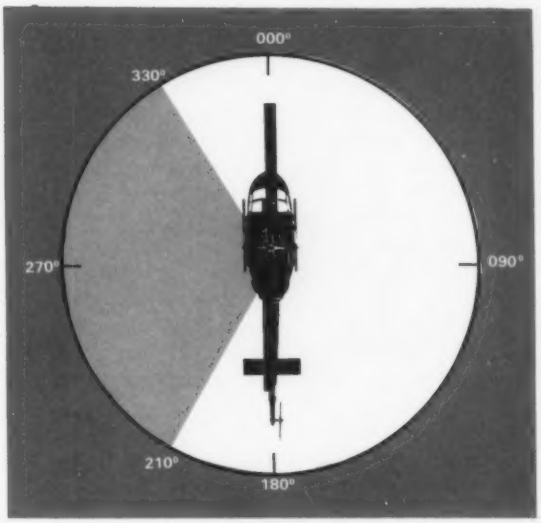


Figure 2

effect of this main rotor disc vortex is to change the tail rotor angle of attack. Initially as the tail-rotor comes into the area of the main rotor disk vortex during a right turn, the angle of attack of the tail rotor is

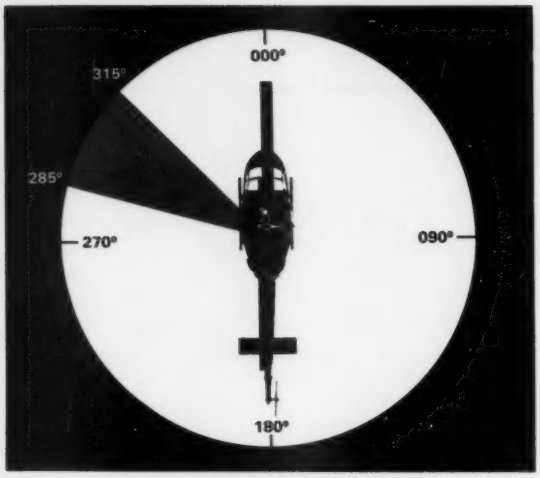


Figure 3

increased. This increase in angle of attack requires the pilot to add right pedal (reduce thrust) to maintain the same rate of turn. As the main rotor vortex passes the tail rotor, the tail rotor angle of attack is reduced. The reduction in angle of attack causes a reduction in thrust and a right yaw acceleration begins. This acceleration can be surprising, since the pilot was previously adding right pedal to maintain the right turn rate. Analysis of flight test data during this time verifies that the tail rotor does not stall. The helicopter will exhibit a tendency to make a sudden, uncommanded right yaw which, if uncorrected, will develop into a high turn rate. When operating in this region, the pilot must anticipate the need for sudden left pedal inputs.

A loss of translational lift results in increased power demand and additional anti-torque requirements. If loss of translational lift occurs when the aircraft is experiencing a right turn rate, the right turn will be accelerated as power is increased, unless corrective action is taken by the pilot. When operating at or near maximum power, this increased power demand could result in rotor rpm decay. This characteristic is most significant when operating at or near maximum power and is associated with unanticipated right yaw for two reasons. First, if the pilot's attention is diverted as a result of increasing right yaw rate, he might not realize that he is losing relative wind and hence losing translational lift. Second, if the pilot does not maintain airspeed while making a right downwind turn, the aircraft can experience an increasing right yaw rate as the power demand increases and the aircraft develops a sink rate. Insufficient pilot attention to wind direction and velocity can lead to unexpected loss of translational lift. The pilot must continually consider aircraft heading, ground track, and apparent groundspeed, all of which contribute to wind drift and airspeed sensations. Allowing the helicopter to drift over the ground with the wind results in a loss of relative wind speed and a corresponding decrease in the translational lift will result in an increase in power demand and anti-torque requirements.

RECOVERY TECHNIQUE

If a sudden unanticipated right yaw occurs, the following recovery technique should be performed:

1. Pedal—Full left; simultaneously,
   Cyclic—forward to increase speed.
2. As recovery is effected, adjust controls for normal forward flight.

CAUTION

COLLECTIVE PITCH REDUCTION WILL AID IN ARRESTING THE YAW RATE BUT MAY CAUSE AN EXCESSIVE RATE OF DESCENT. THE SUBSEQUENT LARGE, RAPID INCREASE IN COLLECTIVE TO PREVENT GROUND OR OBSTACLE CONTACT MAY FURTHER INCREASE THE YAW RATE AND DECREASE ROTOR RPM. THE DECISION TO REDUCE COLLECTIVE MUST BE BASED ON THE PILOT'S ASSESSMENT OF THE ALTITUDE AVAILABLE FOR RECOVERY.

3. If spin cannot be stopped and ground contact is imminent, an autorotation may be the best course of action. Maintain full left pedal until the spin stops, then adjust to maintain heading.

NOTE

Various wind directions cause different rates of turn for a given pedal position. It is important the pilot remember that THE TAIL ROTOR IS NOT STALLED. Thus, corrective action to arrest any turn rate is always pedal application opposite the direction of turn.

Courtesy FAA Flyer AAC-260
From Bell's Rotorbreeze

The Flight Before Christmas

By Col Orlen L. Brownfield
Former Associate Editor *TMF*

'Twas the night before Christmas,
And out on the line,
The birds were all airborne,
Some shouldn't have been flyin'.
But the mission's important,
Priority one,
To get home for Christmas,
For frolic and fun.

Through the static of airways,
There came a commotion.
I could tell by the phone patch,
'Twas a Twenty-First notion.
What dastardly, devious,
Diabolical deed,
Had ops center come up with
To cut down our speed?

"Divert to your alternate,"
A voice loud and clear.
"Say again," I responded,
"You're unreadable, dear."
"Divert into Dover;
You'll spend the night there."
But tomorrow was Christmas;
It just wasn't fair.

To my copilot I turned,
"What did he say?"
"I really don't know, Sir;
He just faded away."
"Unable to copy,"
I said with a smile,
And turned off the HF
And counted each mile.

I looked over my shoulder
At the old engineer.
A wink of his eye meant
I'd nothing to fear.
I thought to myself,
Could I shave off an hour?
I reached for the throttles
And pushed up the power.

We skimmed the cloud tops
At the near .80 Mach.
Would we make it on time?
I looked at the clock,
I leaned back in my seat,
Rest my eyes for a bit;
We'd make it with ease.
Then, it suddenly hit!!!

The "T" handle twinkled,
The horn sounded merry,
It glowed like a rose
As I faced it squarely.
I yanked out the handle
And hit the fire bottle,
Called for the checklist
And retarded the throttle.

Thoughts in my keen,
Analytical mind,
Told me at once,
This would put us behind.
I looked at my copilot.
A tear in his eye,
"Can we make the home drome?"
"We'll give it a try!"

"What d'ya think, Gator?
You've got all the facts,
Can we make the low country,
Cruising at max?"
Spinning his computer
And squinting his eyes,
The answer he gave
Was to me a surprise.

"Can we make it to home?
I think maybe, yes —
We'll just beat ol' Santa,
Is my estimated guess."
Just one hour later,
Gear down and locked,
On final for one-five,
The field was quite "socked."

Then, the runway I saw
At one hundred feet.
RCR: one,
And covered with sleet.
Then the SOF called,
"MAC, take her around!"
"You're too late," I said,
"Cuz we're now on the ground."

Reverse, brakes, and spoilers,
We made the last turn.
Good landing, I thought,
But reasonably firm.
Well, we made it on time.
What could be better?
"Merry Christmas," said tower;
"Now call the ops center."

"It's a good thing you guys
Just busted on through.
You've got to replace
A DNIF aircrew.
Post mission's been waived."
The ops center said.
"You'll fly back to Dover,
Sorry—deadhead."

We transferred our bags
To a one forty-one.
In spite of our efforts,
We'd miss all the fun.
Then the SOF said to me,
"It serves you just right!
Merry Christmas, you all,
And—have a good flight."

C.R. Terror

The party that wasn't.

A cold, stabbing drizzle flowed in rivulets down the kitchen window of C.R. Terror's townhouse retreat as he contemplated his last-minute Christmas plans. With only 24 hours left before the annual visit of the jolly old elf himself, the Portly Procrastinator was making one last-ditch effort to come up with an idyllic idea on how to spend the most magic of holidays. Lost in thought, he genteelly slurped a cup of his infamous "java" as Windsock, the Ace Aeronaut's arrogant airedale, looked longingly at his owner. C.R. glanced down and noticed the pensive pooch's problematic pose.

"There, there, Windsock old bean," the Truculent Titan began, "I suppose you and I should finalize the formalities for a cheerful Christmas Eve celebration, eh what?" C.R.'s dainty digits reached for a pen and paper as he began to list the people he'd invite for one of his "successful" parties. "Lemme see, now. We'll have Sammy and his wife over, along with Blinky and that new lady friend of his." C.R. looked up thoughtfully, the tip of the pen held gently between his clenched teeth. "And let's not forget Tassels. Can't do that, can we, my fretful friend?" Windsock cocked his head to one side with a look of consternation.

C.R. continued to list all of his friends—Max and his wife, along with Ty and his date, as well as everyone else he could think of.

"Well, all that's left now is to call everyone up and the party will be off and running," he commented offhandedly to Windsock who was, by now, curled up at C.R.'s feet, totally oblivious to the Bibulous Buffoon's blubberings. "Where's the telephone book?"

The Master Manipulator began to push the numbers on his C-5 "Touch Fone," the one he had especially made on his last foray to Korea.

"Tassels, m'lovely vision of feminine pulchritude. And how are you this evening?"

"Why fine, honey chile," she began, the Southern drawl as thick as peach blossom honey. "What can I do for y'all?"

"Ah, my little pigeon, it seems that I am going to have a little bash tomorrow night and need your . . ."

"Oh, sugah plum," she interrupted the Portly Pillar of Pilotdom, "y'all know I'd nevah let ya'll down, but, er, my momma's sick and I really do have to fly down to Hotlantah to be with her. Y'all understand, don't ya, sugah pie?"

C.R. was disappointed,

but what could he say. "I understand, my little chickadee. Give my best to your mother for me." Strike one, but undaunted, C.R. ran his dainty digit down to Sammy's number.

"Sam residence here. Captain Sam speaking."

"Sammy, m'lad. How goes it?" questioned C.R., gently leading up to his invitation.

"Not bad, Boss. Lori and I were just having a little present-wrapping session for the kids. You know, bikes and dolls and that sort of thing."

"Worthy undertaking, Sammy," sighed the Ambient Aeronaut, "but I was wondering what you and the missus had going on for Christmas Eve. Thought I'd have a few close friends over for a little get to . . ."

"Er, sorry, er, ah Boss," Sam stammered slowly. "Er, you see, Blinky and I got stuck with Bravo alert and I don't think we'll be able to make it. You know ol' Captain Back," he offered, referring to the squadron's infamous scheduler, "Stabbem-in-the."

"Gee," pondered the Pudgy Pilot, "you and Blinky *both*?"

"Sorry, Boss," Sammy replied apologetically. "Why don't you try Max and Ty? I think they escaped the holidays unscathed."

"Good idea, Sammy m'lad." And with that, C.R. placed the facsimile of a C-5 on its cradle—which also resembled a maintenance stand—and took a sip of coffee.

"Well, we may be up to strike two, Windsock, but we aren't out yet. It isn't over until . . ." C.R. thought for a moment. "Oh, yes. It isn't over until it's over! Let's give Max a call." Removing the camouflaged mini-behemoth of a phone, C.R. punched up the number of Max Torque, his trusty engineer.

"Max, old boy. Merry Christmas!" This time, he didn't even give the person at the other end a chance to answer his greeting. "Max, I'm in a bind and I need you and Ty for a very important party tomorrow night at my house and I'll furnish all the . . ."

"Hold on, Boss. Hold on!" Max finally got a word into the one-sided conversation. "I wish you'd called a few minutes sooner. Captain Back put both Ty and me on Bravo with Captain Sam and Lieutenant Blinky Donivan. I'm afraid we'll be, er, out of pocket. Sorry about that."

Strike three! "I understand, Max. Er, any chance I could get on the crew, too. That way we'll all be together for . . ."

"I doubt it, Boss. Captain Back said he wouldn't dare interrupt your holidays after the last threat you made against his body."

"Uh, right Max. Well, here's hoping you and the boys don't get called out," C.R. tried to say without sounding totally deflated.

"Uh, what about your party, Boss?" Max asked.

"Oh, I'll find someone to attend my bash. I've got lots of friends, you know. In fact, I must be going now, so's I can order all the goodies from Friendly Fred's Phood Place. See ya, Max." C.R.

Terror, the Cynical Celebrant, now faced reality. There was going to be no special Christmas Eve party staged by the World's Greatest Airlifter!

Next day, the cold rain had turned to a brilliant white powder. Overnight, about two feet of the white stuff had fallen all over McMac AFB and vicinity, giving the area a picture-postcard ambience. But even this did not cheer up the Deflated Field Grader. He moped around his townhouse completely disheartened and totally alone, except for Windsock. Then, about 5 p.m., the phone rang once, then once again. The Flatulent Flyboy made a mad dash and caught it in midair as he tripped over the cord, landing squarely on his greater gluteals.

"World's Greatest Aviator, at your service," he began with his usual salutation. "You furnish the plane and I furnish the flier. May I help you?"

"Major Terror, this is Captain Back. You know, (gulp!) the scheduler?" Only the voice at the other end of the phone knew how much the young scheduler was shaking. "Er, I'm sorry, sir, but I'm afraid I really do need you to fly a Bravo alert mission. You see, the other AC came down with the flu and you are the last pilot in the squadron who can take the mission, if you'll waive your premission crew rest, that is. It'll be your standard crew and . . ."

The Global Galaxy Grappler was beside himself with glee. "Waive my premission crew rest? Is that all?" C.R. was obviously overjoyed. "Why, Merry Christmas, Stabbem old bean. To go and fly today, I'd even waive my three-day comp time and a month's leave to boot. When do I report?"

"As soon as you can pick up your copilot, Sammy, at his house. I believe Blinky's over there, too."

"Right you are. See you in a few minutes." With that, the Ambient Aeronaut literally flew the phone back onto the receiver and dashed upstairs. After throwing the usual amount of clothes into his bulging baby-blue B-4 bag, C.R. floundered back downstairs, patted Windsock on the head, and slipped and slid out to his 1962-vintage E-type Jag. Singing something that sounded vaguely like "Let It Snow," C.R., at the controls of the decrepit Jag, with the top down, fishtailed up the street and around the corner.

In a matter of minutes, he was standing at Sammy's door, his pudgy pinky pushing the doorbell. But something was definitely not right. The usually punctual Sammy was nowhere to be seen, and the house was as dark as the now rapidly falling night. C.R. gently pushed open the unlocked door and called softly.

"Sammy? Blinky? Anyone home?" He went in and fumbled for a light switch he assumed had to be nearby. "It's me, C.R. Where is everybody?"

And with that, the lights suddenly came on and a group of people jumped up from behind the living room furniture.

"Surprise, Boss!" they yelled in perfect unison. "Merry Christmas!"

C.R. was aghast, his mouth open in utter shock! Someone thrust a glass of liquid libation into his pudgy paw as most of the merrymakers started singing "O Come All Ye Faithful" around the piano.

"But what about the Bravo alert? What about the mission? What about . . .?"

"All a fable, Boss," Sammy began. "Sorry about the fibs, but we had planned this for weeks and didn't really know how to tell you. So; with the help of Captain Back and everyone else in the squadron, we conjured up a 'phantom Bravo alert' story so you wouldn't suspect anything."

"But what about Tassels?" C.R. continued to query. "Was she in on this, too.?"

"Merry Christmas, honey lamb," Tassels said as she appeared with a tray of hors d'oeuvres, and leaned over to kiss the Surprised Skipper's ample forehead. "I thought y'all would be surprised right out of your little old flight boots."

"Yeah, Boss," pitched in Max. "Will you forgive us for fibbing this time? After all, this is the Christmas season, you know."

C.R. wiped a tear away from his baby blues, and sipped the second libation someone had slipped into his hand. "Of course I will," he began, and then he added, "but just this once." And with that he turned about, raised his fluid filled goblet and announced in his best baritone, "Merry Christmas, everyone! Merry Christmas . . . and thanks!"

Quick Stoppers

Species Unknown

In the ongoing battle between the ferocious fowl and we ardent aviators, the crew of a C-5A proved once again that aviators *can* prevail (at some cost to the aircraft). It seems that shortly after this C-5 took off, one of our fine feathered friends decided the shortest distance between two points was through the number-one engine compressor section of the gracious Galaxy. The engine began to vibrate severely followed shortly by rapid fuel flow and TIT fluctuations. The crew accomplished the proper checklist and shut down the engine. Prior to the shutdown, some compressor blade fragments exploded through the engine cowling, producing a five-inch hole approximately four feet aft of the inlet tip. The agitated airmen returned to base and made an otherwise uneventful landing.

The result of this unfortunate close encounter was over $32,000 damage to the C-5. But never fear, justice did prevail. The beleaguered bird was reduced to its most basic molecular structure, never to be seen again—species unknown.

OH, FOR A HOME-COOKED MEAL

After a long and uneventful Trans-Pacific flight, the crew of the Starlifter was looking forward to a short but enjoyable crew rest at their scenic Asian destination. With wheels on the ramp, the crew repaired to quarters, reragged and sallied forth to partake of the local grog and Q-Zene. Having flown in the "system" just a few times, the crew was careful to stay clear of the native drinking water for fear of dysentery. The crew enjoyed the identical bill of fare and returned to the "Q" early, in preparation for the next day's flight. The following day, everything went great until about two hours into the flight when the aircraft commander began experiencing severe intestinal discomfort and nausea. Two hours later (and in keeping with the intent of the crew integrity policy) the loadmaster began experiencing the same symptoms. After an uneventful landing at their next enroute stop, the two afflicted airmen proceeded to the hospital where they were admitted for observation. The symptons yielded a diagnosis of food poisoning. Both crewmembers returned to duty the following day with a healthy respect for exotic foods from faraway places.

K.I.S.S. A Controller

A recent exchange between a controller and the crew of an aircraft arriving at a European base sounded something like this:

CENTER: MAC 65432, contact Zulu approach on 123.45, bye bye.

CREW: MAC 65432, Roger, Good Day. Zulu approach, MAC 65432, FL 200.

APPROACH: MAC 65432, Zulu Approach, field information, VFR with light crosswind, expect ILS runway 31 approach.

CREW: MAC 65432, we'd like a visual approach to 13 if you can coordinate it . . . If it's too much trouble, we'll take a visual to 31, but we'd rather have a visual to 13 . . . .

After a few seconds, APPROACH: MAC 65432, proceed direct to YAHOO, maintain FL 200 til YAHOO, cleared for ILS runway 31 approach.

Why didn't the crew get what it wanted? First, just as a string of numbers rattled off by controllers increases the risk of confusion and error for aircrews, so an impromptu discourse from aircrews affects controllers. You don't need to review your alternatives for everybody else on frequency. Make simple requests; "I want this." Frequencies are already congested. Wouldn't you rather hear a traffic advisory than a monologue?

Second, although ICAO adopted English for air traffic control, that doesn't guarantee that host nation controllers can understand or speak other than standard ATC phrases. Anything else you may say can confuse the controller and you'll be less likely to obtain your request. A letter from one European ATC agency stated, ". . . to date there have been no difficulties with the English language. However, it would be greatly appreciated if Americans cooperated by slowing down their rate of speech and pronouncing more properly the aeronautical terminology . . . ."

So K.I.S.S. a controller. It may not get you everything you want, but it will certainly get you a long way.

Thanks to: Maj. Paul Grubbs
HQ USAFE/SIFC

All Cracked Up

The mission was a helo vs fighter evasive exercise. (The helo, by the way, was evading.) The UH-1 maneuvered away from the target area and hovered over a ridgeline to terrain mask. As the helicopter descended closer to terra firma, it developed a rate of descent which the pilot attempted to counter by adding collective pitch. As the sink rate persisted, the IP cautioned the right seater to increase airspeed in order to fly out of this precarious predicament. Recognizing that the MP did not understand he was power settling, the instructor took the controls and executed a left pedal turn away from the rising terrain. Recognizing the simultaneous loss of forward velocity, vertical distance and enlightened cognitive processes, the IP's remaining alternative was to level the aircraft nose and cushion the impending impact with as much collective as he could muster. The fling wing flying machine hit in a level attitude, rebounded off a rock and stopped in a level repose on the desert floor. The pilots escaped unscathed, the engineer broke his leg and the Huey suffered fractured fin skin and a severely damaged fuselage.

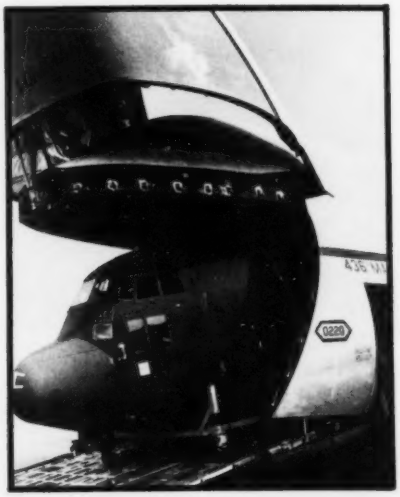
The ensuing mishap investigation concluded the instructor allowed the right seater to place the helo in a position which exceeded the recovery limits of the aircraft and crew. Likewise, had the MP recognized the insidious sink rate for what it was, this mishap might not have happened.

After Deadlines

C-5A TO HAUL SHUTTLE LOADS—Workers at San Antonio Air Logistics Center have a big task ahead of them—modifying the free world's largest aircraft to carry even larger payloads. Two C-5As will be enlarged to accommodate the 15-by-62-foot cannisters used in the shuttle program. Because of the size of the shuttle cannisters, it'll be necessary to remove the troop deck, and enlarge the rear pressure door. While modifications are still in the planning stages, the choice of the C-5 is sure. The aircraft was selected over the DC-10 and 747 airframes with cost of modification, structural simplicity, timeframe and ready availability spelling the winning hand for the C-5. The aircraft's ability to "kneel" during the loading and unloading sequences also played a big part in its selection. Best estimates point to 1990 for the completion of the first modification.

NORTON AIRCREW AIDS LOST PILOT—A C-141 aircrew from the 63d and 445th Military Airlift Wings successfully located and guided a light aircraft to safety. The crew was on a training mission when air traffic control officials at Ontario International Airport asked for help locating and communicating with a civilian aircraft lost in a thunderstorm. The aircrew immediately began relaying radio traffic to the private pilot. But after ten minutes, they decided they'd better try to locate the aircraft and guide it to safety. From his description of terrain, they figured he was near Idyllwild, California, and the San Jacinto Mountains. The crew picked their way through the clouds to find him and though they never actually saw him, they recommended he fly south to the nearest clearing. He did and found a small airfield. The private pilot set his aircraft down safely and was ecstatic at the assistance he'd received. The C-141 crew resumed their original training mission. Congratulations on a job well done from *TMF*.

THE TRUE POWER OF THE C-5 GALAXY-- The nose of a C-130E Hercules from Rhein-Main AB, West Germany, rests in the front end of a C-5 Galaxy at Rhein-Main. The nose section, taken from an aircraft that experienced landing difficulty last year, will be combined with the body of a C-130 that also had a rough landing in the Azores. The finished C-130E, with a repair cost of about $1.7 million, will be used for the adverse weather aerial delivery system (AWADS). Normal cost to the Air Force for a C-130 is between $15 and $21 million. (U.S. Air Force photo by Sgt Kay Pellum)



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Touch'n Go

I know it's a land drop, but there's a lake on the run-in!